

Product Name: Bretazenil

Catalog No.: 3568

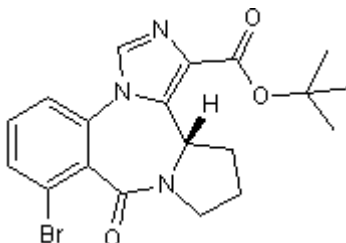
Batch No.: 3

CAS Number: 84379-13-5

IUPAC Name: (13a*S*)-8-Bromo-11,12,13,13a-tetrahydro-9-oxo-9*H*-imidazo[1,5-*a*]pyrrolo[2,1-*c*][1,4]benzodiazepine-1-carboxylic acid 1,1-dimethylethyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉H₂₀BrN₃O₃
Batch Molecular Weight: 418.28
Physical Appearance: White solid
Solubility: DMSO to 100 mM
ethanol to 100 mM
Storage: Desiccate at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.6% purity
Chiral HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	54.56	4.82	10.05
Found	54.33	4.9	9.84

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Partial agonist at the GABA_A benzodiazepine site (EC₅₀ = 10 nM at α1β1γ2 receptors). Displays anticonvulsive activity in vivo.

Physical and Chemical Properties:

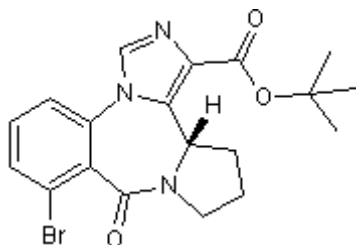
Batch Molecular Formula: C₁₉H₂₀BrN₃O₃

Batch Molecular Weight: 418.28

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Desiccate at +4°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Puia et al (1992) Molecular mechanisms of the partial allosteric modulatory effects of bretazenil at γ-aminobutyric acid type A receptor. Proc.Natl.Acad.Sci. USA Neurobiology **89** 3620.

Rundfeldt et al (1995) Anticonvulsant tolerance and withdrawal characteristics of benzodiazepine receptor ligands in different seizure models in mice. Comparison of diazepam, bretazenil and abecarnil. J.Pharmacol.Exp.Ther. **275** 693. PMID: 7473156.

Munro et al (2008) Comparison of the novel subtype-selective GABA_A receptor-positive allosteric modulator NS11394 [3'-[5-(1-hydroxy-1-methyl-ethyl)-benzoimidazol-1-yl]-biphenyl-2-carbonitrile] with diazepam, zolpidem, bretazenil, and gaboxadol in rat models of inflammatory and neuropathic pain. J.Pharmacol.Exp.Ther. **327** 969. PMID: 18791060.

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